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(FILE 'HOME' ENTERED AT 14:32:25 ON 15 NOV 2002)

FILE 'MEDLINE, CAPLUS, BIOSIS, SCISEARCH' ENTERED AT 14:32:37 ON 15 NOV 2002

L1 408 S PGK(W) (PROMOTER OR PROMOTOR OR REGULATORY(W) ELEMENT)  
L2 208573 S TRANSGEN?  
L3 77 S L1 AND L2  
L4 3407 S FETAL(W) TISSUE(W) TRANSPLANTATION  
L5 87133 S PARKINSON(2A) DISEASE  
L6 661 S L4 AND L5  
L7 57 S REVIEW AND L6  
L8 52 DUP REM L7 (5 DUPLICATES REMOVED)

=> d au ti so 1-30 l8

L8 ANSWER 1 OF 52 CAPLUS COPYRIGHT 2002 ACS  
AU Nakao, Naoyuki; Itakura, Toru  
TI Cell transplantation therapy for neurodegenerative disorders: from fetal  
tissue to neural stem cells  
SO Shinkei Kenkyu no Shinpo (2002), 46(2), 297-305  
CODEN: SKNSAF; ISSN: 0001-8724

L8 ANSWER 2 OF 52 MEDLINE  
AU Fricker-Gates R A; Lundberg C; Dunnett S B  
TI Neural transplantation: restoring complex circuitry in the striatum.  
SO Restor Neurol Neurosci, (2001) 19 (1-2) 119-38. Ref: 232  
Journal code: 9005499. ISSN: 0922-6028.

L8 ANSWER 3 OF 52 MEDLINE  
AU Zesiewicz T A; Hauser R A  
TI Neurosurgery for **Parkinson's disease**.  
SO SEMINARS IN NEUROLOGY, (2001) 21 (1) 91-101. Ref: 124  
Journal code: 8111343. ISSN: 0271-8235.

L8 ANSWER 4 OF 52 MEDLINE  
AU Borlongan C V  
TI Transplantation therapy for **Parkinson's disease**.  
SO EXPERT OPINION ON INVESTIGATIONAL DRUGS, (2000 Oct) 9 (10) 2319-30. Ref:  
67  
Journal code: 9434197. ISSN: 1354-3784.

L8 ANSWER 5 OF 52 MEDLINE  
AU Lopez-Lozano J J; Mata M; Bravo G  
TI [Neural transplants en **Parkinson disease**: clinical  
results of 10 years of experience. Group of Neural Transplants of the  
CPH].  
Transplantes neurales en la enfermedad de Parkinson: resultados clinicos  
tras 10 anos de experiencia. Grupo de Trasplantes Neurales de la CPH.  
SO REVISTA DE NEUROLOGIA, (2000 Jun 1-15) 30 (11) 1077-83.  
Journal code: 7706841. ISSN: 0210-0010.

L8 ANSWER 6 OF 52 MEDLINE  
AU Barker R A  
TI Prospects for the treatment of **Parkinson's disease**  
using neural grafts.  
SO Expert Opin Pharmacother, (2000 Jul) 1 (5) 889-902. Ref: 58  
Journal code: 100897346. ISSN: 1465-6566.

L8 ANSWER 7 OF 52 MEDLINE  
AU Mendez I; Baker K A; Hong M  
TI Simultaneous intrastriatal and intranigral grafting (double grafts) in the

rat model of **Parkinson's disease**.  
SO BRAIN RESEARCH. BRAIN RESEARCH REVIEWS, (2000 Apr) 32 (1) 328-39.  
Journal code: 8908638. ISSN: 0165-0173.

L8 ANSWER 8 OF 52 MEDLINE  
AU Larsson L C; Widner H  
TI Neural tissue xenografting.  
SO SCANDINAVIAN JOURNAL OF IMMUNOLOGY, (2000 Sep) 52 (3) 249-56. Ref: 64  
Journal code: 0323767. ISSN: 0300-9475.

L8 ANSWER 9 OF 52 MEDLINE  
AU Barker R A; Kendall A L; Widner H  
TI Neural tissue xenotransplantation: what is needed prior to clinical trials in **Parkinson's disease**? Neural Tissue Xenografting Project.  
SO CELL TRANSPLANTATION, (2000 Mar-Apr) 9 (2) 235-46. Ref: 74  
Journal code: 9208854. ISSN: 0963-6897.

L8 ANSWER 10 OF 52 MEDLINE  
AU Brundin P; Karlsson J; Emgard M; Schierle G S; Hansson O; Petersen A; Castilho R F  
TI Improving the survival of grafted dopaminergic neurons: a **review** over current approaches.  
SO CELL TRANSPLANTATION, (2000 Mar-Apr) 9 (2) 179-95. Ref: 151  
Journal code: 9208854. ISSN: 0963-6897.

L8 ANSWER 11 OF 52 MEDLINE  
AU Bjorklund A  
TI Cell replacement strategies for neurodegenerative disorders.  
SO NOVARTIS FOUNDATION SYMPOSIUM, (2000) 231 7-15; discussion 16-20. Ref: 39  
Journal code: 9807767.

L8 ANSWER 12 OF 52 MEDLINE  
AU Bjorklund A; Lindvall O  
TI [Transplanted nerve cells survive and are functional for many years]. Transplanterade nervceller lever och fungerar i manga ar.  
SO LAKARTIDNINGEN, (1999 Aug 11) 96 (32-33) 3407-12. Ref: 20  
Journal code: 0027707. ISSN: 0023-7205.

L8 ANSWER 13 OF 52 MEDLINE DUPLICATE 1  
AU Clarkson E D; Freed C R  
TI Development of fetal neural transplantation as a treatment for **Parkinson's disease**.  
SO LIFE SCIENCES, (1999 Oct 29) 65 (23) 2427-37. Ref: 62  
Journal code: 0375521. ISSN: 0024-3205.

L8 ANSWER 14 OF 52 MEDLINE  
AU Wyman T; Rohrer D; Kirigiti P; Nichols H; Pilcher K; Nilaver G; Machida C  
TI Promoter-activated expression of nerve growth factor for treatment of neurodegenerative diseases.  
SO GENE THERAPY, (1999 Oct) 6 (10) 1648-60. Ref: 111  
Journal code: 9421525. ISSN: 0969-7128.

L8 ANSWER 15 OF 52 MEDLINE  
AU Macklin R  
TI The ethical problems with sham surgery in clinical research.  
SO NEW ENGLAND JOURNAL OF MEDICINE, (1999 Sep 23) 341 (13) 992-6.  
Journal code: 0255562. ISSN: 0028-4793.  
Report No.: KIE-63223.

L8 ANSWER 16 OF 52 MEDLINE  
AU Freeman T B; Vawter D E; Leaverton P E; Godbold J H; Hauser R A; Goetz C G; Olanow C W  
TI Use of placebo surgery in controlled trials of a cellular-based therapy

for **Parkinson's disease**.

SO NEW ENGLAND JOURNAL OF MEDICINE, (1999 Sep 23) 341 (13) 988-92.  
Journal code: 0255562. ISSN: 0028-4793.  
Report No.: KIE-63222.

L8 ANSWER 17 OF 52 MEDLINE

AU Yadid G; Fitoussi N; Kinor N; Geffen R; Gispan I

TI Astrocyte line SVG-TH grafted in a rat model of **Parkinson's disease**.

SO PROGRESS IN NEUROBIOLOGY, (1999 Dec) 59 (6) 635-61. Ref: 276  
Journal code: 0370121. ISSN: 0301-0082.

L8 ANSWER 18 OF 52 MEDLINE

AU Dunnett S B

TI Repair of the damaged brain. The Alfred Meyer Memorial Lecture 1998.

SO NEUROPATHOLOGY AND APPLIED NEUROBIOLOGY, (1999 Oct) 25 (5) 351-62. Ref: 69  
Journal code: 7609829. ISSN: 0305-1846.

L8 ANSWER 19 OF 52 MEDLINE

AU Obeso J A; Linazasoro G; Gorospe A; Rodriguez M C; Guridi J; Ramos E

TI [Pathophysiological bases, clinical results and indications for surgical treatment in **Parkinson disease**].

Bases fisiopatologicas, resultados clinicos e indicaciones del tratamiento quirurgico de la enfermedad de Parkinson.

SO NEUROLOGIA, (1999 May) 14 Suppl 1 54-71. Ref: 106  
Journal code: 9005460. ISSN: 0213-4853.

L8 ANSWER 20 OF 52 MEDLINE

AU Serrano-Sanchez T; Diaz-Armesto I

TI [Brain-derived growth factor: current aspects].

Factor de crecimiento derivado del cerebro: aspectos de actualidad.

SO REVISTA DE NEUROLOGIA, (1998 Jun) 26 (154) 1027-32. Ref: 79  
Journal code: 7706841. ISSN: 0210-0010.

L8 ANSWER 21 OF 52 MEDLINE

AU Starr P A; Vitek J L; Bakay R A

TI Ablative surgery and deep brain stimulation for **Parkinson's disease**.

SO NEUROSURGERY, (1998 Nov) 43 (5) 989-1013; discussion 1013-5. Ref: 199  
Journal code: 7802914. ISSN: 0148-396X.

L8 ANSWER 22 OF 52 CAPLUS COPYRIGHT 2002 ACS

AU Sanberg, Paul R.; Willing, Alison E.

TI Cellular therapeutic approaches for neurodegenerative disorders

SO Nucleic Acids Symposium Series (1998), 38(Advances in Gene Technology: Molecular Biology in the Conquest of Disease), 139-142  
CODEN: NACSD8; ISSN: 0261-3166

L8 ANSWER 23 OF 52 MEDLINE

AU Pogarell O; Oertel W H

TI Neural transplantation in **Parkinson's disease** and its effects on rest tremor: a **review** of the literature.

SO MOVEMENT DISORDERS, (1998) 13 Suppl 3 101-2. Ref: 14  
Journal code: 8610688. ISSN: 0885-3185.

L8 ANSWER 24 OF 52 MEDLINE

AU Prasad K N; Clarkson E D; La Rosa F G; Edwards-Prasad J; Freed C R

TI Efficacy of grafted immortalized dopamine neurons in an animal model of parkinsonism: a **review**.

SO MOLECULAR GENETICS AND METABOLISM, (1998 Sep) 65 (1) 1-9. Ref: 66  
Journal code: 9805456. ISSN: 1096-7192.

L8 ANSWER 25 OF 52 MEDLINE

AU Kanelos S K; McDeavitt J T  
 TI Neural transplantation: potential role in traumatic brain injury.  
 SO JOURNAL OF HEAD TRAUMA REHABILITATION, (1998 Dec) 13 (6) 1-9. Ref: 36  
 Journal code: 8702552. ISSN: 0885-9701.

L8 ANSWER 26 OF 52 MEDLINE DUPLICATE 2  
 AU Borlongan C V; Koutouzis T K; Jorden J R; Martinez R; Rodriguez A I;  
 Poulos S G; Freeman T B; McKeown P; Cahill D W; Nishino H; Sanberg P R  
 TI Neural transplantation as an experimental treatment modality for cerebral  
 ischemia.  
 SO NEUROSCIENCE AND BIOBEHAVIORAL REVIEWS, (1997 Jan) 21 (1) 79-90. Ref: 96  
 Journal code: 7806090. ISSN: 0149-7634.

L8 ANSWER 27 OF 52 MEDLINE  
 AU Brooks D J  
 TI PET and SPECT studies in **Parkinson's disease**.  
 SO BAILLIERES CLINICAL NEUROLOGY, (1997 Apr) 6 (1) 69-87. Ref: 99  
 Journal code: 9214291. ISSN: 0961-0421.

L8 ANSWER 28 OF 52 MEDLINE  
 AU Rehnckrona S  
 TI A critical **review** of the current status and possible  
 developments in brain transplantation.  
 SO ADVANCES AND TECHNICAL STANDARDS IN NEUROSURGERY, (1997) 23 3-46. Ref:  
 133  
 Journal code: 7501064. ISSN: 0095-4829.

L8 ANSWER 29 OF 52 MEDLINE  
 AU Shetty A K; Turner D A  
 TI Development of fetal hippocampal grafts in intact and lesioned  
 hippocampus.  
 SO PROGRESS IN NEUROBIOLOGY, (1996 Dec) 50 (5-6) 597-653. Ref: 355  
 Journal code: 0370121. ISSN: 0301-0082.

L8 ANSWER 30 OF 52 MEDLINE  
 AU Chisholm A H  
 TI **Fetal tissue transplantation** for the  
 treatment of **Parkinson's disease**: a **review**  
 of the literature.  
 SO JOURNAL OF NEUROSCIENCE NURSING, (1996 Oct) 28 (5) 329-38. Ref: 34  
 Journal code: 8603596. ISSN: 0888-0395.

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(FILE 'HOME' ENTERED AT 17:29:19 ON 15 NOV 2002)

FILE 'MEDLINE, CAPLUS, BIOSIS, SCISEARCH' ENTERED AT 17:29:37 ON 15 NOV 2002

L1 7176 S TRANSGEN?(8A) (KNOCKOUT OR DELET? OR DIMINISH?)  
L2 3209 S NUCLEAR(W) TRANSFER  
L3 12 S L1 AND L2  
L4 7 DUP REM L3 (5 DUPLICATES REMOVED)

=> d au ti so ab 1-7 l4

L4 ANSWER 1 OF 7 MEDLINE DUPLICATE 1  
AU Arat Sezen; Gibbons John; Rzucidlo S Jacek; Respass Donald S; Tumlin  
Monica; Stice Steven L  
TI In vitro development of bovine **nuclear transfer**  
embryos from transgenic clonal lines of adult and fetal fibroblast cells  
of the same genotype.  
SO BIOLOGY OF REPRODUCTION, (2002 Jun) 66 (6) 1768-74.  
Journal code: 0207224. ISSN: 0006-3363.  
AB This study examined bovine cloning strategies that may be used for gene  
targeting in animals of known phenotypic traits. Fibroblast cells derived  
from an adult and a fetus of the same genotype were transfected with a  
plasmid (pEGFP-N1) containing the enhanced green fluorescence protein and  
neomycin-resistant genes. After transfecting 2 x 10(5) cells, 49 adult and  
35 fetal cell colonies were obtained. Green fluorescence expression was  
observed in 35 out of 49 (71.4%) adult clones and in 30 out of 35 (85.7%)  
fetal clones. Developmental rates to the blastocyst stage following  
**nuclear transfer** (NT) did not differ among  
nontransfected cell lines (adult, 20.0%; NT fetal, 18.3%), whereas  
developmental rates were significantly lower for adult and fetal cell  
lines expressing enhanced green fluorescent protein (EGFP; 11.3% and 6.4%,  
respectively, P < 0.05). However, there was no decrease in NT  
developmental rates (19.8%) when donor nuclei from EGFP-transfected cell  
lines not expressing EGFP but retaining neomycin-resistant gene expression  
were used as donor nuclei. NT embryos from adult and fetal cell lines had  
similar morphology, cell number, and ploidy. The results indicated that  
adult and NT fetal cells (identical genotype) can complete clonal  
propagation, including transfection and selection, and can be used to  
produce **transgenic** NT embryos; however, a possible  
**deleterious** effect of EGFP on embryo development should be  
considered in future gene targeting studies.

L4 ANSWER 2 OF 7 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.  
AU Lai, Liangxue; Kolber-Simonds, Donna; Park, Kwang-Wook; Cheong, Hee-Tae;  
Greenstein, Julia L.; Im, Gi-Sun; Samuel, Melissa; Bonk, Aaron; Rieke,  
August; Day, Billy N.; Murphy, Clifton N.; Carter, David B.; Hawley,  
Robert J.; Prather, Randall S.. (1)  
TI Production of alpha-1,3-galactosyltransferase knockout pigs by  
**nuclear transfer** cloning.  
SO Science (Washington D C), (8 February, 2002) Vol. 295, No. 5557, pp.  
1089-1092. <http://www.sciencemag.org/content/current/>. print.  
ISSN: 0036-8075.  
AB The presence of galactose alpha-1,3-galactose residues on the surface of  
pig cells is a major obstacle to successful xenotransplantation. Here, we  
report the production of four live pigs in which one allele of the  
alpha-1,3-galactosyltransferase locus has been knocked out. These pigs  
were produced by **nuclear transfer** technology; clonal  
fetal fibroblast cell lines were used as nuclear donors for embryos  
reconstructed with enucleated pig oocytes.

L4 ANSWER 3 OF 7 CAPLUS COPYRIGHT 2002 ACS  
AU Harrison, Sharon J.; Guidolin, Angelo; Faast, Renate; Crocker, Lesley A.;

GIANNAKIS, Chris; D'Apice, Anthony J. F.; Nottle, Mark B.; Lyons, Ian  
 TI Efficient generation of .alpha.(1,3) galactosyltransferase knockout  
 porcine fetal fibroblasts for **nuclear transfer**  
 SO Transgenic Research (2002), 11(2), 143-150  
 CODEN: TRSEES; ISSN: 0962-8819  
 AB Pigs are currently considered the most likely source of organs for human  
 xenotransplantation because of anatomical and physiol. similarities to  
 humans, and the relative ease with which they can be bred in large nos. A  
 severe form of rejection known as hyperacute rejection has been the major  
 barrier to the use of xenografts. Generating transgenic pigs for organ  
 transplantation is likely to involve precise genetic manipulation to  
 ablate the .alpha.(1,3) galactosyltransferase (galT) gene. In contrast to  
 the mouse, homologous recombination in livestock species to ablate genes  
 is hampered by the inability to isolate functional embryonic stem cells.  
 However, **nuclear transfer** using genetically targeted  
 cultured somatic cells provides an alternative means to producing pigs  
 deficient for galT. In this study the authors successfully produced  
 galT+/- somatic porcine fetal fibroblasts using two approaches; pos. neg.  
 selection (PNS) using an isogenic targeting construct, and with a  
 promoterless vector using non-isogenic DNA.

L4 ANSWER 4 OF 7 CAPLUS COPYRIGHT 2002 ACS  
 IN Melton, David William  
 TI Methods for amplifying genetic material in transgenic non-human animal  
 cells by using purine phosphoribosyltransferase gene as selectable marker  
 SO PCT Int. Appl., 65 pp.  
 CODEN: PIXXD2  
 AB The present invention concerns a method comprising subjecting a cell from  
 a host cell population to a gene amplification protocol to produce a  
 transgenic non-human animal cell which is totipotent or totipotent for  
**nuclear transfer** and which cell comprises amplified  
 copies of a nucleic acid sequence of interest. The selectable marker gene  
 in plasmid vectors was selected from purine phosphoribosyltransferase  
 gene, such as hypoxanthine phosphoribosyltransferase (HPRT). Several  
 plasmid vectors contg. HPRT gene were constructed and tested for  
 coamplification of gene of interest or amplification of partially-disabled  
 HPRT minigene. Consequently, high levels of a product of interest may be  
 obtained from the animal.

L4 ANSWER 5 OF 7 SCISEARCH COPYRIGHT 2002 ISI (R)  
 AU Niemann H (Reprint); Verhoeyen E; Wonigeit K; Lorenz R; Hecker J;  
 Schwinzer R; Hauser K; Kues W A; Halter R; Lemme E; Herrmann D; Winkler M;  
 Wirth D; Paul D  
 TI Cytomegalovirus early promoter induced expression of hCD59 in porcine  
 organs provides protection against hyperacute rejection  
 SO TRANSPLANTATION, (27 DEC 2001) Vol. 72, No. 12, pp. 1898-1906.  
 Publisher: LIPPINCOTT WILLIAMS & WILKINS, 530 WALNUT ST, PHILADELPHIA, PA  
 19106-3621 USA.  
 ISSN: 0041-1337.  
 AB The critical shortage of human donor organs has generated growing  
 interest for porcine to human xenotransplantation. The major immunological  
 barrier to xenotransplantation is the hyperacute rejection (HAR) response  
 that is mediated by preformed xenoreactive antibodies and complement. A  
 promising strategy to control the complement activation, is the expression  
 of human complement regulatory proteins in transgenic animals. We have  
 used the human early cytomegalovirus (CMV) promoter to drive expression of  
 the human complement regulatory protein CD59 (hCD59) in transgenic pigs. A  
 total of eight live transgenic founder animals was born from which five  
 transgenic lines could be established. mRNA analysis and Western blotting  
 revealed high expression of hCD59 in heart, kidney, skeletal muscle, and  
 skin in animals of lines 1 and 5, as well as in the pancreas of four  
 lines. This pattern of expression was confirmed by immunohistological  
 staining. A cell-specific expression in heart and kidney tissue of  
 transgenic lines 1 and 5 was determined. Primary fibroblasts and

endothelial cell cultures derived from the aorta of **transgenic** pigs showed a significantly **diminished** sensitivity against the challenge with xenoreactive human antibodies and complement whereas non-transgenic control cells were highly susceptible to complement mediated lysis. Ex vivo perfusion of kidneys with pooled human blood revealed a significant protective effect of hCD59 against HAR. The average survival of transgenic kidneys was significantly extended ( $P < 0.05$ ) over nontransgenic controls (207.5  $\pm$  54.6 vs. 57.5  $\pm$  64.5 min). These data support the concept that hCD59 protects nonprimate cells against human complement mediated lysis and suggest that donor pigs transgenic for hCD59 could play a crucial role in clinical xenotrans-plantation. Two of five hCD59 transgenic lines showed strong hCD59 expression in several organs relevant for xenotransplantation and a protective effect against HAR. This indicates that the use of the CMV-promoter can facilitate the selection process for optimized transgene expression.

- L4 ANSWER 6 OF 7 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.  
 AU Ogura, Atsuo (1); Ogonuki, Narumi; Takano, Kaoru; Inoue, Kimiko  
 TI Microinsemination, **nuclear transfer**, and cytoplasmic transfer: The application of new reproductive engineering techniques to mouse genetics.  
 SO Mammalian Genome, (November, 2001) Vol. 12, No. 11, pp. 803-812. print. ISSN: 0938-8990.
- L4 ANSWER 7 OF 7 MEDLINE DUPLICATE 2  
 AU Tao T; Machaty Z; Boquest A C; Day B N; Prather R S  
 TI Development of pig embryos reconstructed by microinjection of cultured fetal fibroblast cells into in vitro matured oocytes.  
 SO ANIMAL REPRODUCTION SCIENCE, (1999 Jun 28) 56 (2) 133-41. Journal code: 7807205. ISSN: 0378-4320.
- AB **Nuclear transfer** as originally developed for use in amphibians involved microinjecting a nucleus directly into the cytoplasm of the oocyte. A major mammalian modification has been to use cell fusion to introduce the nucleus. Here we report using a microinjection method to introduce small and medium sized fibroblast cells into mature oocytes. Small cells were more likely to result in nuclear formation (30%) than larger cells (15%;  $P = 0.013$ ). Small, confluent and serum starved cells resulted in nuclear formation more often ( $P < 0.048$ ) than did cycling cells. The rate of nuclear formation was not dependent upon the media, (NCSU-23 or TL-Hepes without calcium) nor upon the duration of exposure to the media (1 h to 4 h) after microinjection but before activation. While such treatments did not have an effect on nuclear formation, treatment of parthenogenetically activated oocytes with calcium-free TL-Hepes reduced the percentage of blastocysts ( $P = 0.068$ . 11.2% vs. 18.3%) and increased the percentage of morula stage embryos ( $P = 0.007$ ; 27.6% vs. 15.7%) as compared with culture in NCSU. Finally, small confluent cells were used for **nuclear transfer** and resulted in two presumptive blastocyst stage embryos [2/128 injected or 2/38 (5.3%) successful injections]. These results show that presumptive blastocyst stage embryos can result from microinjection of fibroblast cells to enucleated oocytes and thus may provide a method to create **transgenic knockout** animals.

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